Quantum field theory meets gravity



Contribution ID: 16 Type: not specified

High precision Higgs Phenomenology at the LHC

Wednesday 25 September 2019 17:00 (30 minutes)

Fiducial differential cross sections are reliable observables at the LHC. Precision measurements are providing unprecedented data which reveals the detailed structure of the Standard Model. From the theory point of view, event generators could simulate the underlying scattering processes and apply the same experimental selection criterions to reduce systematical errors when comparing with data. I will introduce some of the implementations and simulations in NNLOJET package with the-state-of-the-art theory precisions at NNLO QCD and above then illustrate their applications when comparing with LHC measurements of the Higgs boson

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Session Classification: Parallel Session: Particle Phenomenology

Track Classification: Particle Phenomenology